

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
09/993,385	11/14/2001	J. Wallace Parce	100/11420	9961		
21569 7	590 12/29/2004		EXAMINER			
	FE SCIENCES, INC.	BEISNER, WILLIAM H				
605 FAIRCHII MOUNTAIN V	LD DRIVE VIEW, CA 94043-2234		BEISNER, WILLIAM H	PAPER NUMBER		
	· · · · · · · · · · · · · · · · · · ·		1744			
			DATE MAIL ED. 12/20/200	DATE MAIL ED: 12/20/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

* •								
•	Application	on No.	Applicant(s)					
	09/993,38	35	PARCE ET AL.					
Office Action Summary	Examin ı		Art Unit					
	William H.		1744					
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status								
1) Responsive to communication(s) filed of	on <u>12 October 200</u>	<u>4</u> .						
)☐ This action is FINAL . 2b)☒ This action is non-final.							
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is								
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.								
Disposition of Claims								
4)⊠ Claim(s) <u>1-52</u> is/are pending in the application.								
4a) Of the above claim(s) <u>15-52</u> is/are withdrawn from consideration.								
5) Claim(s) is/are allowed.								
6)⊠ Claim(s) <u>1-14</u> is/are rejected.								
	7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/or election requirement.								
Application Papers								
9)☐ The specification is objected to by the Examiner.								
10)⊠ The drawing(s) filed on <u>14 November 2001</u> is/are: a)⊠ accepted or b) \square objected to by the Examiner.								
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).								
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority under 35 U.S.C. § 119								
12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).								
a) All b) Some * c) None of:								
1. Certified copies of the priority documents have been received.								
 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage 								
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).								
* See the attached detailed Office action for a list of the certified copies not received.								
Attachment(s)								
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-	.948)	4) Interview Summary Paper No(s)/Mail D						
3) Information Disclosure Statement(s) (PTO-1449 or PTO		5) Notice of Informal F		152)				
Paper No(s)/Mail Date <u>4/1/02&6/21/04</u> .		6) Other:						
U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)	Office Action Summa	ry Pa	art of Paper No./Mail Dat	e 20041214				

Application/Control Number: 09/993,385 Page 2

Art Unit: 1744

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-14 in the reply filed on 10/12/04 is acknowledged.

2. Claims 15-52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions and/or species, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 10/12/04.

Information Disclosure Statement

3. The information disclosure statements filed 4/1/02 and 6/21/04 have been considered and made of record.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Skeggs (US 3,699,004).

Application/Control Number: 09/993,385

Art Unit: 1744

With respect to claim 1, the reference of Skeggs discloses a method of moving a volume of a reaction mixture through a channel segment (40). The method includes the steps of introducing a sample (a first volume of reaction mixture) into the channel segment. The method then introduces a volume of air (environmental control agent) into the channel segment followed by a volume of wash liquid (See column 7, lines 56-72).

With respect to claim 2, the air is introduced after the sample.

With respect to claim 3, the wash liquid would be the third fluid introduced into the channel segment.

With respect to claims 4 and 5, the sample fluid is a component of a biological system since it includes enzymes that react with a substrate (See column 7, lines 27-35).

6. Claims 1, 6, 7 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Gatten et al.(US 5,183,486).

With respect to claims 1 and 6, the reference of Gatten et al. discloses a method of moving a volume of a first fluid (1660a) into a first channel segment (1612) and flowing a volume of a second fluid (1660b) into the first channel segment (1612) (See column 9, lines 32-56). The first fluid (1660a) meets the claim limitation of an environmental control agent since the fluid is a degassed fluid and a degassed fluid can be an environmental control agent as recited in claim 6.

With respect to claim 7, the fluid is inherently not gas saturated since it has been degassed by device (1676).

Art Unit: 1744

With respect to claim 12, the first fluid (1660a) is degassed by degassing unit (1676) immediately prior to the step of flowing the first fluid through the channel segment (1612) (See Figure 16).

With respect to claims 13 and 14, the reference discloses that the degassing unit includes both a negative pressure and a heater for degassing the fluid (See Figures 7 and 8 and related text).

Claim Rejections - 35 USC § 103

- 7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 8. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

Art Unit: 1744

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gatten et al.(US 5,183,486).

The reference of Gatten et al. has been discussed above.

While the reference discloses degassing a fluid that is introduced into a channel segment, the reference is silent as to the level of degassing of the fluid.

However, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the optimum amount of degassing to be provided to the liquid based merely on considerations of the material properties of the fluids employed and/or the specifics of the reaction and/or analysis to be performed in the system while providing the required degassing and associated protection of the system against errors resulting from the presence of air in the analysis system.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Warden can be reached on 571-272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William H. Beisner Primary Examiner Art Unit 1744

WHB